

O'Bryen, Barbara

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From: Rabin, Evelyn  
To: O'Bryen, Barbara  
Subject: Sequence Search 08/700737  
Date: Tuesday, June 03, 1997 8:54AM  
Priority: High

1816 305-6811

Barbara, Please search SEQ ID NOS. 12, 15, and 19. Thank you.

BOPB 6-4-97  
x4291

3aa  
3db  
MP  
online 3  
prep 10

Rabin

L7 ANSWER 5 OF 6 BIOSIS COPYRIGHT 1997 BIOSIS

AN 94:61987 BIOSIS

DN 97074987

TI Differential expression in rheumatoid synovium and synovial fluid of **alpha-4-beta-7** integrin. A novel receptor for Fibronectin and vascular cell adhesion molecule-1.

AU Lazarovits A I; Karsh J

CS Univ. Hosp., Room 4TU46, Box 5339, 339 Windermere Rd., London, ON N6A 5A5, CAN

SO Journal of Immunology 151 (11). 1993. 6482-6489. ISSN: 0022-1767

LA English

AB T lymphocyte adhesion to vascular endothelium plays an important role in the immunopathogenesis of rheumatoid arthritis. The migration of T lymphocytes into the synovium is mediated by a variety of adhesion molecules, notably the integrins. We have prepared **Act**

1, a murine mAb that identifies a novel integrin termed

**alpha-4-beta-7**. The natural ligands for

**alpha-4-beta-7** are vascular cell adhesion

molecule-1 and fibronectin; both molecules are upregulated in the rheumatoid synovium. We investigated the expression of **alpha**

**-4-beta-7** in the three compartments of rheumatoid

arthritis, the peripheral blood, synovial fluid, and synovial

membrane, utilizing the FACS and immunoperoxidase microscopy of

frozen tissues. The results of our experiments show a striking

differential expression of **alpha-4-beta-7**

integrin in rheumatoid arthritis. Sixty-two percent of synovial

membrane T cells expressed high density **alpha-4**

**-beta-7**, in contrast to only 4.7% of synovial fluid and 9.1% of PBL.

These data suggest that the expression of **alpha-4**

**-beta-7** integrin may provide a mechanism whereby certain T cells

adhere to rheumatoid synovium while others remain in the synovial

fluid. The augmented expression of **alpha-4-beta-7**

in the synovial membrane T cells may contribute to the development

L5 ANSWER 1 OF 6 MEDLINE  
 AN 97099142 MEDLINE  
 TI Distribution of beta 7 integrins in human intestinal mucosa and organized gut-associated lymphoid tissue.  
 AU Farstad I N; Halstensen T S; Lien B; Kilshaw P J; Lazarovitz A I; Brandtzaeg P  
 CS Laboratory for Immunohistochemistry and Immunopathology (LIIPAT), University of Oslo, National Hospital, Norway.  
 SO IMMUNOLOGY, (1996 Oct) 89 (2) 227-37.  
 Journal code: GH7. ISSN: 0019-2805.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 9702  
 EW 19970204  
 AB Two alternative integrins involved in mucosal homing (**alpha 4 beta 7**) or epithelial retention (**alpha E beta 7**) of lymphocytes were examined in the human gut. The distribution of the beta 7 subunit [monoclonal antibody (mAb) M301] was bimodal in that it was strongly expressed by **alpha E beta 7** + cells but weakly by **alpha 4 beta 7** + cells. More than 90% of intraepithelial lymphocytes (IEL), including the minor subsets of CD4+, T-cell receptor (TCR) gamma/delta +, and CD3- cells, expressed **alpha E beta 7** as did most lamina propria CD8+ (88%) and a fraction (36%) of CD4+ lymphocytes. Conversely, B-lineage cells (CD19+) and macrophages (CD68+) were negative. In gut-associated lymphoid tissue (GALT: Peyer's patches and appendix) only a few (< 5%) cells were positive for **alpha E beta 7** (confined to CD8+ lymphocytes and CD11c+ putative dendritic cells). A relatively small fraction of IEL (30-50%) expressed **alpha 4 beta 7** (mAb **Act-1**), while most (70%) lamina propria T and B lymphocytes, blasts, plasma cells and macrophages were positive. In GALT, T lymphocytes expressed similar levels of **alpha 4 beta 7** as in the lamina propria whereas relatively few B lymphocytes (< 50%) were positive. Isolated lamina propria CD8+, CD4+, CD19+, and CD38+ cells contained mRNA for **alpha 4** and the former three subsets as well as appendix CD8+ cells also for beta 7 while only lamina propria CD8+ cells had mRNA for **alpha E**. Together, the results suggested that **alpha E beta 7** and **alpha 4 beta 7** are differentially regulated in inductive sites and effector sites of the human gut. Because lymphoid cells at both sites expressed mainly **alpha 4 beta 7**, this integrin may be a homing receptor on memory and effector cells bound for lamina propria as well as on naive lymphocytes extravasating in GALT. Conversely, because **alpha E beta 7** was mainly expressed by CD8+ cells in epithelium and lamina propria, it was probably induced after extravasation, in agreement with the observation that IEL and a fraction of lamina propria T lymphocytes (mainly CD8+ cells) generally expressed higher levels of beta 7 than most CD4+ and B cells. Also a subset of putative dendritic cells located near the follicle-associated epithelium of GALT expressed **alpha E beta 7**, perhaps reflecting epithelial

interaction during primary immune responses.

L5 ANSWER 2 OF 6 MEDLINE

AN 97067800 MEDLINE

TI Integrin **alpha 4** beta 7 mediates human eosinophil interaction with MAdCAM-1, VCAM-1 and fibronectin.

AU Walsh G M; Symon F A; Lazarovits A L; Wardlaw A J

CS Department of Respiratory Medicine University of Leicester Medical School, Glenfield General Hospital, UK.

SO IMMUNOLOGY, (1996 Sep) 89 (1) 112-9.

Journal code: GH7. ISSN: 0019-2805.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 9702

EW 19970204

AB We have investigated the contribution of integrin **alpha 4** beta 7 to human peripheral blood eosinophil adhesive interactions. Immunofluorescence and flow cytometry demonstrated constitutive expression of **alpha 4** beta 7 by eosinophils. Expression of **alpha 4** beta 7 or **alpha 4** beta 7 was not enhanced by eosinophil activation with platelet-activating factor (PAF). Expression of **alpha 4** beta 7 was confirmed by immuno-precipitation of <sup>125</sup>I-labeled lysates analysed by sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS PAGE). Approximately 20% of unstimulated eosinophils were adherent to L1-2 cells transfected with vascular cell adhesion molecule-1 (VCAM-1) cDNA, while very few resting eosinophils adhered to mouse mucosal addressin cell adhesion molecule-1 (MAdCAM-1) transfectants. Binding of unstimulated eosinophils to VCAM-1 transfectant was inhibited by HPI 2 (an antibody that blocks both **alpha 4** beta 1 and **alpha 4** beta 7 functions), but not **Act-1**, and **alpha 4** beta 1 monoclonal antibody (mAb). PAF stimulation resulted in increased binding of eosinophils to MAdCAM-1 transfectants, which was inhibited by both HPI 2 and **Act-1**. In contrast, PAF did not enhance binding to VCAM 1 transfectants, although binding of PAF-stimulated eosinophils to VCAM-1 could be partially inhibited by **Act-1**. Stimulation of eosinophils with the beta 7-activating mAb TS2 16 resulted in enhanced binding of eosinophils to both VCAM-1 and MAdCAM-1 transfectants. The increased binding was largely **alpha 4** beta 7-dependent. Unstimulated eosinophils bound to soluble recombinant human (rh) VCAM-1 and fibronectin (Fn), coated on 96-well plates in dose-dependent manner. Binding was inhibited by HPI-2 and 4b4, an anti-beta 1 mAb, but not by **Act-1**. TS2 16 treatment increased adherent cell numbers and this enhanced binding was inhibited by **Act-1**. We have therefore confirmed that **alpha 4** beta 7 is functionally active on unstimulated eosinophils. In contrast, PAF-induced enhancement of eosinophils binding to VCAM-1 or MAdCAM-1 was **alpha 4** beta 7-dependent. In addition treatment with TS2 16 resulted in a **alpha 4** beta 7-dependent enhancement of eosinophil binding to VCAM-1, MAdCAM-1 and Fn. We therefore hypothesize that **alpha 4** beta 7 may have an important role in eosinophil localization in diseases such as asthma and inflammatory bowel disease.

L5 ANSWER 3 OF 6 MEDLINE  
 AN 97067798 MEDLINE  
 TI Expression and function of **alpha 4**/beta 7  
 integrin on human natural killer cells.  
 AU Perez-Villar J J; Zapata J M; Melero I; Postigo A; Sanchez-Madrid E;  
 Lopez-Botet M  
 CS Servn to de Immunologia Hospital de la Prineesa, Madrid, Spain.  
 SO IMMUNOLOGY, (1996 Sep) 89 (1) 96-104.  
 Journal code: GH7. ISSN: 0019-2805.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 9702  
 EW 19970204  
 AB In this report we have analysed the expression and function of the  
**alpha 4**/beta 7 heterodimer in human natural killer  
 (NK) cells. The expression of **alpha 4** beta 7 is  
 induced in NK cells upon activation as the anti **alpha**  
**4** beta 2 **ACT-1** monoclonal antibody (mAb)  
 family stained a minority of peripheral blood NK cells, whereas it  
 strongly reacted with in vitro long-term interleukin-2  
 (IL-2)-activated NK cells. Incubation with **ACT-1**  
 on its F(ab) fragments induced a strong homotypic adhesion of NK  
 cells, comparable to than stimulated by the anti-**alpha**  
**4** HPI 7 mAb. Cell cell interaction induced by the  
**ACT-1** mAb was only prevented by another anti-  
**alpha 4** mAb (HP2.1) that recognizes a different  
 epitope. In **alpha 4** beta 7-mediated cell  
 aggregation the **alpha 4** beta 7 heterodimer was  
 redistributed to intercellular contact sites thus, suggesting a  
 direct involvement of this integrin in the formation of cell  
 clusters. In NK cells attached to Fibronectin (FN38) or vascular  
 cell adhesion molecule-1 (VCAM-1), both **alpha 4**  
 beta 7 and **alpha 4** beta 7 integrins were  
 redistributed at the ventral cellular membrane forming discrete  
 contact sites. The **ACT-1** mAb only partially  
 blocked NK cell binding to FN38, but in combination with the  
 anti-beta 7 mAb LIAI 2, NK cell binding to FN38 was completely  
 inhibited. In contrast. **ACT-1** did not modify NK  
 cell adhesion to VCAM-1 thus supporting the theory that the  
**alpha 4** beta 7 binding sites for both ligands  
 appear to be different. Our results indicate that upon  
 IL-2-activation, expression of functional **alpha 4**  
 beta-integrin is induced on NK cells potentially participating in  
 their interaction with both extracellular matrix and endothelial  
 cells.

L5 ANSWER 4 OF 6 MEDLINE  
 AN 96286047 MEDLINE  
 TI Specific inhibition of T lymphocyte coactivation by triggering  
 integrin beta 1 reveals convergence of beta 1, beta 2, and beta 7  
 signaling pathways.  
 AU Woodside D G; Teague T K; McIntyre B W  
 CS Department of Immunology, University of Texas, M.D. Anderson Cancer  
 Center, Houston 77030, USA.  
 NC CA62596 (NCI)  
 SO JOURNAL OF IMMUNOLOGY, (1996 Jul 15) 157 (2) 700-6.

Journal code: IFB. ISSN: 0022-1767.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals

EM 9701

EW 19970104

AB T cell coactivation is a dynamic process subject to integrin-dependent positive and negative regulation. Costimulation of human peripheral blood T cells by CD3 mAb OKT3 in conjunction with anti-**alpha 4** has been shown to be down-regulated by the anti-beta 1.1 epitope-specific mAb 18D3. As expected, maximal costimulation induced by **alpha 4**-specific mAb L25 was inhibited (70%) by the addition of soluble mAb 18D3. Surprisingly, soluble mAb 18D3 inhibited maximal proliferation induced by the costimulatory **alpha 4** beta 7-specific mAb **ACT-1** by 40%, thus demonstrating that one integrin subfamily can regulate the activity of another. To determine whether mAb 18D3 could regulate more than **alpha 4**-associated integrin-mediated costimulation, non-**alpha 4** integrins were tested. mAb 18D3 inhibited maximal proliferation induced by **alpha 4**-specific mAb 3D6, and an **alpha 4**-specific mAb 16. This clearly demonstrates that a variety of integrin costimulatory molecules (of the beta 1, beta 2, and beta 7 subfamilies) can be regulated negatively by mAb 18D3. To analyze the specificity of this negative regulation, other cell surface costimulatory molecules were tested for susceptibility to mAb 18D3. Although Abs specific for CD4, CD26, CD28, CD44, CD45RA, or CD45RO were sufficient to activate T cells when co-immobilized with anti-CD3 mAb, all were refractory to the inhibitory effects of mAb 18D3. Inhibition of T cell activation directly correlated with diminished IL-2 production. This suggests that mAb 18D3 selectively regulates integrin-dependent T cell activation by delivering a negative effect at some common point utilized by various integrin subfamilies.

L5 ANSWER 5 OF 6 MEDLINE

AN 95261715 MEDLINE

TI Integrin **alpha 4** beta 7 co-stimulation of human peripheral blood T cell proliferation.

AU Teague T K; Lazarovits A I; McIntyre B W

CS Department of Immunology, University of Texas M. D. Anderson Cancer, Center, Houston 77030, USA.

NC CA62596 (NCI)

SO CELL ADHESION AND COMMUNICATION, (1994 Dec) 2 (6) 539-47.

Journal code: B4A. ISSN: 1061-5385.

CY Switzerland

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 9508

AB The integrin **alpha 4** beta 7 mediates lymphocytes adhesion to VCAM-1 on activated endothelium, fibronectin in the extracellular matrix, and the mucosal vascular addressin MADCAM-1. It is unclear whether **alpha 4** beta 7 performs any function beyond directing specific adhesion reactions. We addressed the possibility that triggering of **alpha 4** beta 7 with a specific monoclonal antibody was capable of

delivering an accessory stimulus that would coactivate T cells and lead to proliferation. At submitogenic levels of anti-CD3 stimulation, triggering of **alpha 4 beta 7** by immobilized mAb **ACT-1** resulted in T cell blastogenesis, IL-2 production, expression of the IL-2 receptor alpha chain CD25, and ultimately DNA synthesis. These results indicate that the integrin **alpha 4 beta 7** is involved in more than lymphocyte adhesion and homing but also plays a role in cell signaling.

L5 ANSWER 6 OF 6 MEDLINE  
AN 93329067 MEDLINE  
TI Selective expression of integrin **alpha 4 beta 7** on a subset of human CD4+ memory T cells with Hallmarks of gut-trophism.  
AU Schweighoffer T; Tanaka Y; Tidswell M; Erle D J; Horgan K J; Luce G E; Lazarovits A I; Buck D; Shaw S  
CS Experimental Immunology Branch, National Cancer Institute, National Institutes of Health, Bethesda, MD 20892.  
NC AR60684 (NIAMS)  
HL07185 (NHLBI)  
SO JOURNAL OF IMMUNOLOGY, (1993 Jul 15) 151 (2) 717-29.  
Journal code: IFB. ISSN: 0022-1767.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 9310  
AB Human memory CD4+ T lymphocytes are heterogenous in expression of integrins; one subset has the unexpected phenotype beta 1 low **alpha 4** high. We demonstrate that this subset is unique among CD4+ cells in expression of high levels of **alpha 4 beta 7**, detected by a distinctive mAb **Act-1**. **alpha 4 beta 7** is involved in binding to both fibronectin and vascular cell adhesion molecule-1; **Act-1** blocks cell binding to the former and augments binding to the latter. **Act-1** expression marks a subset of memory cells that, unlike the predominant circulating memory cell, has up-regulated beta 7 rather than beta 1. Their phenotype is distinct from that described for skin-homing T cells and is fully consistent with that described for gut-homing T cells. Differential adhesion capacity of this subset is verified by selective binding to FN and vascular cell adhesion molecule-1 in a beta 1-independent fashion. Thus, **alpha 4 beta 7** detected on this subset of circulating normal T cells fits the expectations for a gut-homing receptor.

\*\*\*\*\*  
Welcome to DIALOG

Dialog level 99.05.27D

Last logoff: 08jul99 09:06:31

Logon file001 12jul99 17:37:04

ANNOUNCEMENT \*\*\*\* ANNOUNCEMENT \*\*\*\* ANNOUNCEMENT  
NEW

\*\*\*Market Guide Company Financials (File 100)  
\*\*\*Frost & Sullivan Market Engineering (File 767)  
\*\*\*Canada Newswire (File 616 for current news, File 816 for archive)  
\*\*\*So America Bus Info (File 617 for current news, File 817  
for archive news)  
\*\*\*UPI News (Files 261 for current news & 861 for archive news)  
\*\*\*Africa News (Files 606 for current news & 806 for archive news)  
\*\*\*ITAR/TASS (Files 607 for current news & 667 for archive news)  
\*\*\*Xinhua News (Files 618 for current news & 818 for archive news)  
\*\*\*Business Wire (Files 610 for current news & 810 for archive news)  
\*\*\*PR Newswire (Files 613 for current news & 813 for archive news)  
\*\*\*U.S. Newswire (Files 605 for current news & 665 for archive news)  
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\*\*\*Gale Group New Product Announcements (File 621)  
\*\*\*Aerospace/Defense Markets & Technology (File 80)  
\*\*\*ICC British Company Directory (File 561)  
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\*\*\*Philosopher's Index (File 57)

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<  
>>> of new databases, price changes, etc. <<<  
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\*\*\*\*\* The MASIS DIALORDER service has been discontinued. For \*\*\*\*\*  
\*\*\*\*\* details, please contact MARUZEN CO. LTD, at 3-3272-3496. \*\*\*\*\*  
  
\*\*\*\*\* Jupiter Communications removed May 14. \*\*\*\*\*  
  
\*\*\*\*\* Preliminary records through 05/05  
  
\*\*\* File 332 is currently unavailable. \*\*\*

File 1:ERIC 1966-1999/Jul  
(c) format only 1999 The Dialog Corporation

Set	Items	Description
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? b 410		



>>>'IALOG' not recognized as set or accession number  
? set hi ;set hi

12jul99 17:37:11 User208760 Session D1285.1  
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\$0.27 Estimated cost File1  
FTSNET 0.016 Hrs.  
\$0.27 Estimated cost this search  
\$0.27 Estimated total session cost 0.085 DialUnits

File 410:Chronolog(R) 1981-1999 Jul/Aug  
(c) 1999 The Dialog Corporation plc

Set	Items	Description
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**HILIGHT set on as ''**  
? begin 5,73,155,399,357

12jul99 17:37:25 User208760 Session D1285.2  
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\$0.00 Estimated cost File410  
FTSNET 0.004 Hrs.  
\$0.00 Estimated cost this search  
\$0.27 Estimated total session cost 0.125 DialUnits

SYSTEM:OS - DIALOG OneSearch  
File 5:Biosis Previews(R) 1969-1999/Jun W3  
(c) 1999 BIOSIS  
File 73:EMBASE 1974-1999/Jun W4  
(c) 1999 Elsevier Science B.V.  
File 155:MEDLINE(R) 1966-1999/Aug W4  
(c) format only 1999 Dialog Corporation  
\*File 155: reloaded, note accession numbers changed.  
File 399:CA SEARCH(R) 1967-1999/UD=13102  
(c) 1999 American Chemical Society  
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RANK charge added; see HELP RATES 399.  
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(c) 1999 Derwent Publ Ltd  
\*File 357: Derwent changes DialUnit pricing from May 1, 1999. See  
HELP DERWENT for details.

Set	Items	Description
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? s 9act(W)1) and antibod

>>>Unmatched parentheses

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<-----User Break----->

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? s (act(w)1) and antibod? and (alpha4 or beta7 or alpha4(w)beta7)

Processing

184515	ACT
6926774	1
187	ACT(W)1
1491491	ANTIBOD?
1875	ALPHA4
292	BETA7
1875	ALPHA4
292	BETA7

33 ALPHA4(W)BETA7  
S1 3 (ACT(W)1) AND ANTIBOD? AND (ALPHA4 OR BETA7 OR  
ALPHA4(W)BETA7)  
? rd s1  
...completed examining records  
S2 3 RD S1 (unique items)  
? t s2/7/all

2/7/1 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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09144254 97376878

Structure-function analysis of the integrin beta 7 subunit:  
identification of domains involved in adhesion to MAdCAM-1.

Tidswell M; Pachynski R; Wu SW; Qiu SQ; Dunham E; Cochran N; Briskin MJ;  
Kilshaw PJ; Lazarovits AI; Andrew DP; Butcher EC; Yednock TA; Erle DJ

Lung Biology Center, Department of Medicine, University of California,  
San Francisco 94143, USA. easd@itsa.ucsf.edu

J Immunol (UNITED STATES) Aug 1 1997, 159 (3) p1497-505, ISSN  
0022-1767 Journal Code: IFB

Contract/Grant No.: K08HL03230, HL, NHLBI; R01HL52004, HL, NHLBI; AI37832  
, AI, NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Beta 7 integrins serve special roles in mucosal immunity. Alpha 4 beta  
7-mediated adhesion to mucosal addressin cell adhesion molecule-1  
(MAdCAM-1) directs lymphocyte homing to the gut, and alpha E beta 7  
mediates binding of lymphocytes to E-cadherin on epithelial cells. Since  
alpha 4 beta 7 mediates adhesion to MAdCAM-1 but alpha 4 beta 1 does not,  
we used beta 7/beta 1 chimeras to directly assess the importance of  
specific regions of beta 7 in MAdCAM-1 binding. We found a region of beta 7  
(residues 46-386) that accounts for specificity of alpha 4 beta 7 binding  
to MAdCAM-1. We also used human/mouse and human/rat chimeric beta 7  
subunits to map epitopes recognized by fifteen anti-beta 7 mAbs. Six of  
seven Abs that block adhesion to MAdCAM-1 and E-cadherin (Fib 21, 22, 27,  
30, 504; **Act-1**) mapped to amino acid residues 176-250. Residues  
176-250 lie within the region of beta 7 that specifies MAdCAM-1 binding and  
also within a region that has a predicted structure homologous to the metal  
ion-dependent adhesion site (MIDAS) domains of the integrin subunits alpha  
L and alpha M. Three new Abs that recognize beta 7 in the presence of Mn2+  
but not Ca2+, and promote adhesion to MAdCAM-1, mapped to amino acids  
46-149. One blocking and five other Abs mapped to other regions (amino  
acids 387-725). We conclude that a MIDAS-like domain serves a critical role  
in beta 7 integrin-mediated adhesion.

2/7/2 (Item 2 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
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08839966 97099142

Distribution of beta 7 integrins in human intestinal mucosa and organized  
gut-associated lymphoid tissue [published erratum appears in Immunology  
1997 Jun;91(2):322]

Farstad IN; Halstensen TS; Lien B; Kilshaw PJ; Lazarovits AI; Brandtzaeg  
P; Lazarovitz AI [corrected to Lazarovits AI]

Laboratory for Immunohistochemistry and Immunopathology (LIIPAT),  
University of Oslo, National Hospital, Norway.

Immunology (ENGLAND) Oct 1996, 89 (2) p227-37, ISSN 0019-2805  
Journal Code: GH7

Languages: ENGLISH

Document type: JOURNAL ARTICLE

Two alternative integrins involved in mucosal homing (alpha 4 beta 7) or epithelial retention (alpha E beta 7) of lymphocytes were examined in the human gut. The distribution of the beta 7 subunit [monoclonal antibody (mAb) M301] was bimodal in that it was strongly expressed by alpha E beta 7 + cells but weakly by alpha 4 beta 7 + cells. More than 90% of intraepithelial lymphocytes (IEL), including the minor subsets of CD4+, T-cell receptor (TCR) gamma/delta +, and CD3- cells, expressed alpha E beta 7 as did most lamina propria CD8+ (88%) and a fraction (36%) of CD4+ lymphocytes. Conversely, B-lineage cells (CD19+) and macrophages (CD68+) were negative. In gut-associated lymphoid tissue (GALT: Peyer's patches and appendix) only a few (< 5%) cells were positive for alpha E beta 7 (confined to CD8+ lymphocytes and CD11c+ putative dendritic cells). A relatively small fraction of IEL (30-50%) expressed alpha 4 beta 7 (mAb **Act-1**), while most (70%) lamina propria T and B lymphocytes, blasts, plasma cells and macrophages were positive. In GALT, T lymphocytes expressed similar levels of alpha 4 beta 7 as in the lamina propria whereas relatively few B lymphocytes (< 50%) were positive. Isolated lamina propria CD8+, CD4+, CD19+, and CD38+ cells contained mRNA for alpha 4 and the former three subsets as well as appendix CD8+ cells also for beta 7 while only lamina propria CD8+ cells had mRNA for alpha E. Together, the results suggested that alpha E beta 7 and alpha 4 beta 7 are differentially regulated in inductive sites and effector sites of the human gut. Because lymphoid cells at both sites expressed mainly alpha 4 beta 7, this integrin may be a homing receptor on memory and effector cells bound for lamina propria as well as on naive lymphocytes extravasating in GALT. Conversely, because alpha E beta 7 was mainly expressed by CD8+ cells in epithelium and lamina propria, it was probably induced after extravasation, in agreement with the observation that IEL and a fraction of lamina propria T lymphocytes (mainly CD8+ cells) generally expressed higher levels of beta 7 than most CD4+ and B cells. Also a subset of putative dendritic cells located near the follicle-associated epithelium of GALT expressed alpha E beta 7, perhaps reflecting epithelial interaction during primary immune responses.

2/7/3 (Item 3 from file: 155)

DIALOG(R) File 155:MEDLINE(R)

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08806160 96286047

Specific inhibition of T lymphocyte coactivation by triggering integrin beta 1 reveals convergence of beta 1, beta 2, and beta 7 signaling pathways.

Woodside DG; Teague TK; McIntyre BW

Department of Immunology, University of Texas, M.D. Anderson Cancer Center, Houston 77030, USA.

J Immunol (UNITED STATES) Jul 15 1996, 157 (2) p700-6, ISSN 0022-1767  
Journal Code: IFB

Contract/Grant No.: CA62596, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE

T cell coactivation is a dynamic process subject to integrin-dependent positive and negative regulation. Costimulation of human peripheral blood T cells by CD3 mAb OKT3 in conjunction with anti-alpha 4 has been shown to be down-regulated by the anti-beta 1.1 epitope-specific mAb 18D3. As expected, maximal costimulation induced by alpha 4-specific mAb L25 was inhibited (70%) by the addition of soluble mAb 18D3. Surprisingly, soluble mAb 18D3 inhibited maximal proliferation induced by the costimulatory alpha 4 beta 7-specific mAb **ACT-1** by 40%, thus demonstrating that one integrin subfamily can regulate the activity of another. To determine whether mAb 18D3 could regulate more than alpha 4-associated integrin-mediated costimulation, non-alpha 4 integrins were tested. mAb 18D3 inhibited maximal proliferation induced by alpha 4-specific mAb 3D6, and an alpha 4-specific mAb 16. This clearly demonstrates that a variety of integrin costimulatory molecules (of the beta 1, beta 2, and beta 7

subfamilies) can be regulated negatively by mAb 18D3. To analyze the specificity of this negative regulation, other cell surface costimulatory molecules were tested for susceptibility to mAb 18D3. Although Abs specific for CD4, CD26, CD28, CD44, CD45RA, or CD45RO were sufficient to activate T cells when co-immobilized with anti-CD3 mAb, all were refractory to the inhibitory effects of mAb 18D3. Inhibition of T cell activation directly correlated with diminished IL-2 production. This suggests that mAb 18D3 selectively regulates integrin-dependent T cell activation by delivering a negative effect at some common point utilized by various integrin subfamilies.

ds

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Set      Items  Description
S1        3  (ACT(W)1) AND ANTIBOD? AND (ALPHA4 OR BETA7 OR ALPHA4(W)BE-
           TA7)
S2        3  RD S1 (unique items)
? s  antibod? and (alpha4 or beta7 or alpha4(w)beta7)

           1491491  ANTIBOD?
           1875    ALPHA4
           292     BETA7
           1875    ALPHA4
           292     BETA7
           33      ALPHA4(W)BETA7
S3        637  ANTIBOD? AND (ALPHA4 OR BETA7 OR ALPHA4(W)BETA7)
? s s3 and (alpha4(w)beta7 or alpha4beta7)

           637    S3
           1875    ALPHA4
           292     BETA7
           33      ALPHA4(W)BETA7
           204    ALPHA4BETA7
S4        39  S3 AND (ALPHA4(W)BETA7 OR ALPHA4BETA7)
? rd s4

...completed examining records
S5        32  RD S4 (unique items)
? t s5/3/all
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5/3/1 (Item 1 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
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11967567 BIOSIS NO.: 199900220880  
Jejuna of patients with insulin-dependent diabetes mellitus (IDDM) show  
signs of immune activation.

AUTHOR: Savilahti E(a); Ormala T; Saukkonen T; Sandini-Pohjavuori U;  
Kantele J M; Arito A; Ilonen J; Akerblom H K  
AUTHOR ADDRESS: (a)Hospital for Children and Adolescents, University of  
Helsinki, Stenbackinkatu 11, FIN-00290, Hel, Finland

JOURNAL: Clinical and Experimental Immunology 116 (1):p70-77 April, 1999  
ISSN: 0009-9104  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English  
SUMMARY LANGUAGE: English

5/3/2 (Item 2 from file: 5)  
DIALOG(R)File 5:BIOSIS Previews(R)  
(c) 1999 BIOSIS. All rts. reserv.

11828952 BIOSIS NO.: 199900075061  
The development of experimental autoimmune encephalomyelitis in the mouse  
requires **alpha4**-integrin but not **alpha4beta7**-integrin.

AUTHOR: Engelhardt Britta(a); Laschinger Melanie; Schulz Martina;  
Samulowitz Ulrike; Vestweber Dietmar; Hoch Gabi  
AUTHOR ADDRESS: (a)Max-Planck Institut Physiologische, Klinische Forschung,  
W.G. Kerck-Hoff-Institut, Abt. Molekula, Germany

JOURNAL: Journal of Clinical Investigation 102 (12):p2096-2106 Dec. 15,  
1998  
ISSN: 0021-9738  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

5/3/3 (Item 3 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 1999 BIOSIS. All rts. reserv.

11782775 BIOSIS NO.: 199900028884  
MAdCAM-1 costimulates T cell proliferation exclusively through integrin  
**alpha4beta7**, whereas VCAM-1 and CS-1 peptide use alpha4beta1:  
Evidence for "remote" costimulation and induction of hyperresponsiveness  
to B7 molecules.

AUTHOR: Lehnert Klaus; Print Cristin G; Yang Yi; Krissansen Geoffrey W(a)  
AUTHOR ADDRESS: (a)Univ. Auckland, Sch. Med., Park Rd., Grafton, Auckland,  
New Zealand

JOURNAL: European Journal of Immunology 28 (11):p3605-3615 Nov., 1998  
ISSN: 0014-2980  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

5/3/4 (Item 4 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 1999 BIOSIS. All rts. reserv.

11610774 BIOSIS NO.: 199800392539  
Blockade of both L-selectin and **alpha4** integrins abrogates naive CD4  
cell trafficking and responses in gut-associated lymphoid organs.

AUTHOR: Bradley Linda M(a); Malmo Mary E; Fong Sherman; Tonklonogy Susan L;  
Watson Susan R  
AUTHOR ADDRESS: (a)Dep. Immunol., Scripps Res. Inst., IMM-23, 10550 North  
Torrey Pines, Road, La Jolla, CA 92037, USA

JOURNAL: International Immunology 10 (7):p961-968 July, 1998  
ISSN: 0953-8178  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

5/3/5 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

07694830 EMBASE No: 1999172498  
Lymphocyte migration in lymphocyte function-associated antigen (LFA)-1-  
deficient mice  
Berlin-Rufenach C.; Otto F.; Mathies M.; Westermann J.; Owen M.J.; Hamann  
A.; Hogg N.  
N. Hogg, Leukocyte Adhesion Laboratory, Imperial Cancer Research Fund,

Lincoln's Inn Fields, London WC2A 3PX United Kingdom  
AUTHOR EMAIL: hogg@icrf.icnet.uk  
Journal of Experimental Medicine ( J. EXP. MED. ) (United States) 03 MAY  
1999, 189/9 (1467-1478)

CODEN: JEMEA ISSN: 0022-1007  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 51

5/3/6 (Item 2 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

07579020 EMBASE No: 1999059648  
Cooperative activity of alpha4betal and **alpha4beta7** integrins in  
mediating human B-cell lymphoma adhesion and chemotaxis on fibronectin  
through recognition of multiple synergizing binding sites within the  
central cell-binding domain  
Yin Z.; Giacomello E.; Gabriele E.; Zardi L.; Aota S.-I.; Yamada K.M.;  
Skerlavaji B.; Doliana R.; Colombatti A.; Perris R.  
Dr. R. Perris, Division for Experimental Oncology 2, Ctro. di Riferimento  
Oncol. Aviano, Istituto Nazionale Centroeuropeo, Aviano (PN) 33081 Italy  
AUTHOR EMAIL: rperris@ets.it  
Blood ( BLOOD ) (United States) 15 FEB 1999, 93/4 (1221-1230)

CODEN: BLOOA ISSN: 0006-4971  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 33

5/3/7 (Item 3 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

07088726 EMBASE No: 1997370590  
Mucosal immunity in the female genital tract  
Brandtzaeg P.  
P. Brandtzaeg, Lab. Immunohistochemistry (LIIPAT), Institute of  
Pathology, University of Oslo, N-0027 Oslo 1 Norway  
AUTHOR EMAIL: per.brandtzag@rh.uio.no  
Journal of Reproductive Immunology ( J. REPROD. IMMUNOL. ) (Ireland)  
1997, 36/1-2 (23-50)

CODEN: JRIMD ISSN: 0165-0378  
PUBLISHER ITEM IDENTIFIER: S0165037897000612  
DOCUMENT TYPE: Journal; Review  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 108

5/3/8 (Item 4 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

07011841 EMBASE No: 1997298776  
Fibronectin type III5 repeat contains a novel cell adhesion sequence,  
KLDAPT, which binds activated alpha4betal and **alpha4beta7** integrins  
Moyano J.V.; Carnemolla B.; Dominguez-Jimenez C.; Garcia-Gila M.; Albar  
J.P.; Sanchez-Aparicio P.; Leprini A.; Querze G.; Zardi L.; Garcia-Pardo A.  
A. Garcia-Pardo, CIB, CSIC, Velazquez 144, 28006 Madrid Spain  
AUTHOR EMAIL: cibgp96@fresno.csic.es  
Journal of Biological Chemistry ( J. BIOL. CHEM. ) (United States) 1997

, 272/40 (24832-24836)

CODEN: JBCHA ISSN: 0021-9258  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 30

5/3/9 (Item 5 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06957643 EMBASE No: 1997242211

**alpha4** Integrin binding interfaces on VCAM-1 and MADCAM-1: Integrin binding footprints identify accessory binding sites that play a role in integrin specificity

Newham P.; Craig S.E.; Seddon G.N.; Schofield N.R.; Rees A.; Edwards R.M.; Jones E.Y.; Humphries M.J.

P. Newham, WTCCMR, School of Biological Sciences, University of Manchester, Oxford Road, Manchester M13 9PT United Kingdom

AUTHOR EMAIL: pnewham@fs2.scg.man.ac.uk

Journal of Biological Chemistry ( J. BIOL. CHEM. ) (United States) 1997, 272/31 (19429-19440)

CODEN: JBCHA ISSN: 0021-9258  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 55

5/3/10 (Item 6 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06790018 EMBASE No: 1997071520

Bone marrow fibroblast exposure to the inflammatory cytokines tumor necrosis factor-alpha and interferon-alpha increases adhesion of acute myeloid leukemia cells and alters the adhesive mechanism

Bendall L.J.; Kortlepel K.; Gottlieb D.J.

Dr. D.J. Gottlieb, Department of Medicine, Westmead Hospital, Hawkesbury Rd., Westmead, Sydney, NSW 2145 Australia

Experimental Hematology ( EXP. HEMATOL. ) (United States) 1997, 25/2 (132-139)

CODEN: EXHEB ISSN: 0301-472X  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 45

5/3/11 (Item 7 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06705195 EMBASE No: 1996370144

Pathophysiologic role of **alpha4** integrins in the lung

Lobb R.R.; Abraham W.M.; Burkly L.C.; Gill A.; Ma W.; Knight J.A.; Leone D.R.; Antognetti G.; Pepinsky R.B.

Biogen Inc., 14 Cambridge Center, Cambridge, MA 02142 United States

Annals of the New York Academy of Sciences ( ANN. NEW YORK ACAD. SCI. ) (United States) 1996, 796/- (113-123)

CODEN: ANYAA ISSN: 0077-8923  
DOCUMENT TYPE: Journal; Conference Paper  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH



5/3/12 (Item 8 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06648612 EMBASE No: 1996313472  
Phenotype, and migration properties of three major subsets of tissue  
homing T cells in sheep  
Mackay C.R.; Andrew D.P.; Briskin M.; Ringler D.J.; Butcher E.C.  
LeukoSite Inc., 215 First Street, Cambridge, MA 02142 United States  
European Journal of Immunology ( EUR. J. IMMUNOL. ) (Germany) 1996,  
26/10 (2433-2439)

CODEN: EJIMA ISSN: 0014-2980  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/13 (Item 9 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06585083 EMBASE No: 1996249706  
The role of **alpha4** integrins in lung pathophysiology  
Lobb R.R.; Pepinsky B.; Leone D.R.; Abraham W.M.  
Biogen Inc, 14 Cambridge Center, Cambridge, MA 02142 United States  
European Respiratory Journal, Supplement ( EUR. RESPIR. J. SUPPL. ) (  
Denmark) 1996, 9/22 (104S-108S)

CODEN: ERJSE ISSN: 0904-1850  
DOCUMENT TYPE: Journal; Conference Paper  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/14 (Item 10 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06377271 EMBASE No: 1996026641  
In vivo migration of radiolabelled lymphocytes in rheumatoid synovial  
tissue engrafted in SCID mice: Implication of beta2 and **beta7**  
-integrin  
Jorgensen C.; Couret I.; Hellier I.; Bologna C.; Canovas F.; Brochier J.;  
Reme T.; Sany J.  
Service d'Immuno-Rhumatologie, Centre Gui-de-Chauliac, 34295 Montpellier  
Cedex 5 France  
Journal of Rheumatology ( J. RHEUMATOL. ) (Canada) 1996, 23/1 (32-35)

CODEN: JRHUA ISSN: 0315-162X  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/15 (Item 11 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06211534 EMBASE No: 1995240062  
Distinct roles of L-selectin and integrins **alpha4beta7** and LFA-1 in  
lymphocyte homing to Peyer's patch-HEV in situ: The multistep model  
confirmed and refined  
Bargatze R.F.; Jutila M.A.; Butcher E.C.  
Lab. of Immunology/Vascular Biology, Department of Pathology, Stanford  
Univ. School of Medicine, Stanford, CA 94305 United States

Immunity ( IMMUNITY ) (United States) 1995, 3/1 (99-108)

CODEN: IUNIE ISSN: 1074-7613  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/16 (Item 12 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06210427 EMBASE No: 1995237575  
Adhesion molecule expression and adhesion properties of murine intestinal  
intraepithelial lymphocyte hybridomas  
Ni J.; Hollander D.; Sydora B.; Panwala C.  
Human Genome Sciences, Inc., 9620 Medical Center Drive, Rockville, MD  
20850-3338 United States  
Cellular Immunology ( CELL. IMMUNOL. ) (United States) 1995, 164/1  
(156-160)

CODEN: CLIMB ISSN: 0008-8749  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/17 (Item 13 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06203831 EMBASE No: 1995227069  
Construction and adhesive properties of a soluble MAdCAM-1-Fc chimera  
expressed in a baculovirus system: Phylogenetic conservation of  
receptor-ligand interaction  
Yang Y.; Sammar M.; Harrison J.E.B.; Lehnert K.; Print C.G.; Leung E.;  
Prestidge R.; Krissansen G.W.  
Department of Molecular Medicine, School of Medicine, University of  
Auckland, Auckland New Zealand  
Scandinavian Journal of Immunology ( SCAND. J. IMMUNOL. ) (United Kingdom  
) 1995, 42/2 (235-247)

CODEN: SJIMA ISSN: 0300-9475  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/18 (Item 14 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06199138 EMBASE No: 1995230437  
The **alpha4** integrin chain is a ligand for **alpha4beta7** and  
alpha4beta1  
Altevogt P.; Hubbe M.; Ruppert M.; Lohr J.; Von Hoegen P.; Sammar M.;  
Andrew D.P.; McEvoy L.; Humphries M.J.; Butchers E.C.  
Tumor Immunology Programme, German Cancer Research Center, Im Neuenheimer  
Feld 280, D-69120 Heidelberg Germany  
Journal of Experimental Medicine ( J. EXP. MED. ) (United States) 1995,  
182/2 (345-355)

CODEN: JEMEA ISSN: 0022-1007  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/19 (Item 15 from file: 73)

DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06079396 EMBASE No: 1995109880

Lymphocytes infiltrating the CNS during inflammation display a distinctive phenotype and bind to VCAM-1 but not to MAdCAM-1  
Engelhardt B.; Conley F.K.; Kilshaw P.J.; Butcher E.C.  
Department of Pathology, Lab Immunology and Vascular Biology, Stanford Univ School of Medicine, Stanford, CA 94305 United States  
International Immunology ( INT. IMMUNOL. ) (United Kingdom) 1995, 7/3 (481-491)

CODEN: INIME ISSN: 0953-8178  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/20 (Item 16 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

06021979 EMBASE No: 1995052113

Identification of putative ligand-binding sites of the integrin alpha4beta1 (VLA-4, CD49d/CD29)  
Kamata T.; Puzon W.; Takada Y.  
Department of Vascular Biology, The Scripps Research Institute, 10666 North Torrey Pines Road, La Jolla, CA 92037 United States  
Biochemical Journal ( BIOCHEM. J. ) (United Kingdom) 1995, 305/3 (945-951)

CODEN: BIJOA ISSN: 0264-6021  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/21 (Item 17 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05982193 EMBASE No: 1995009367

Dual binding capacity of mucosal immunoblasts to mucosal and synovial endothelium in humans: Dissection of the molecular mechanisms  
Salmi M.; Andrew D.P.; Butcher E.C.; Jalkanen S.  
National Public Health Institute, Kiinamyllynkatu 13, 20520 Turku Finland  
Journal of Experimental Medicine ( J. EXP. MED. ) (United States) 1995, 181/1 (137-149)

CODEN: JEMEA ISSN: 0022-1007  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/22 (Item 18 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05938578 EMBASE No: 1994342969

The pathophysiologic role of **alpha4** integrins in vivo  
Lobb R.R.; Hemler M.E.  
Biogen, Inc., 14 Cambridge Center, Cambridge, MA 02142 United States  
Journal of Clinical Investigation ( J. CLIN. INVEST. ) (United States) 1994, 94/5 (1722-1728)

CODEN: JCINA ISSN: 0021-9738  
DOCUMENT TYPE: Journal; Review

5/3/23 (Item 19 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05792337 EMBASE No: 1994201028  
Identification of a combinatorial epitope expressed by the integrin  
alpha4beta1 heterodimer involved in the regulation of cell adhesion  
Bednarczyk J.L.; Szabo M.C.; Wygant J.N.; Lazarovits A.I.; McIntyre B.W.  
Dept. of Immunology, Texas Univ. M.D. Anderson Can. Ctr., Box 180, 1515  
Holcombe Blvd., Houston, TX 77030 United States  
Journal of Biological Chemistry ( J. BIOL. CHEM. ) (United States) 1994  
, 269/11 (8348-8354)  
  
CODEN: JBCHA ISSN: 0021-9258  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/24 (Item 20 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05496415 EMBASE No: 1993264514  
**alpha4beta7** Integrin mediates B cell binding to fibronectin and  
vascular cell adhesion molecule-1: Expression and function of **alpha4**  
integrins on human B lymphocytes  
Postigo A.A.; Sanchez-Mateos P.; Lazarovits A.I.; Sanchez-Madrid F.; De  
Landazuri M.O.  
Servicio de Inmunologia, Hospital de la Princesa, C/Diego de Leon  
62,28006 Madrid Spain  
Journal of Immunology ( J. IMMUNOL. ) (United States) 1993, 151/5  
(2471-2483)  
  
CODEN: JOIMA ISSN: 0022-1767  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/25 (Item 21 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05451804 EMBASE No: 1993219903  
**alpha4beta7** Integrin mediates lymphocyte binding to the mucosal  
vascular addressin MAdCAM-1  
Berlin C.; Berg E.L.; Briskin M.J.; Andrew D.P.; Kilshaw P.J.; Holzmann  
B.; Weissman I.L.; Hamann A.; Butcher E.C.  
Lab. of Immunology/Vascular Biology, Department of Pathology, Stanford  
University, Stanford, CA 94305 United States  
Cell ( CELL ) (United States) 1993, 74/1 (185-195)  
  
CODEN: CELLB ISSN: 0092-8674  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/26 (Item 22 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 1999 Elsevier Science B.V. All rts. reserv.

05015233 EMBASE No: 1992155449  
Role of integrin **alpha4beta7**/alpha4betaP in lymphocyte adherence to

fibronectin and VCAM-1 and in homotypic cell clustering

Ruegg C.; Postigo A.A.; Sikorski E.E.; Butcher E.C.; Pytela R.; Erle D.J.  
Department of Medicine, Lung Biology Center, University of California, San  
Francisco, CA 94143 United States  
Journal of Cell Biology ( J. CELL BIOL. ) (United States) 1992, 117/1  
(179-189)

CODEN: JCLBA ISSN: 0021-9525  
DOCUMENT TYPE: Journal; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH

5/3/27 (Item 1 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

09963407 99265740

Integrins **alpha4beta7** and alphaEbeta7 are expressed on  
epidermotropic T cells in cutaneous T cell lymphoma and spongiotic  
dermatitis.

Schechner JS; Edelson RL; McNiff JM; Heald PW; Pober JS  
Department of Dermatology, Yale University School of Medicine, New Haven,  
Connecticut 06520-8059, USA.

Lab Invest (UNITED STATES) May 1999, 79 (5) p601-7, ISSN 0023-6837  
Journal Code: KZ4

Contract/Grant No.: T32-AR07016-23, AR, NIAMS; R37-HL36003, HL, NHLBI  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

5/3/28 (Item 2 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

09775096 99043885

Differences in immune responses induced by oral and rectal immunizations  
with Salmonella typhi Ty21a: evidence for compartmentalization within the  
common mucosal immune system in humans.

Kantele A; Hakkinen M; Moldoveanu Z; Lu A; Savilahti E; Alvarez RD;  
Michalek S; Mestecky J  
University of Alabama at Birmingham, Birmingham, Alabama, USA.  
anu.kantele@ksshp.fi

Infect Immun (UNITED STATES) Dec 1998, 66 (12) p5630-5, ISSN  
0019-9567 Journal Code: GO7  
Contract/Grant No.: AI 28147, AI, NIAID; DE 01882, DE, NIDR; AI 34970, AI  
, NIAID; +  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

5/3/29 (Item 3 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

08994387 97193612

Adhesion of multiple myeloma peripheral blood B cells to bone marrow  
fibroblasts: a requirement for CD44 and **alpha4beta7**.

Masellis-Smith A; Belch AR; Mant MJ; Pilarski LM  
Department of Oncology, University of Alberta, Edmonton, Canada.  
Cancer Res (UNITED STATES) Mar 1 1997, 57 (5) p930-6, ISSN 0008-5472  
Journal Code: CNF  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

5/3/30 (Item 4 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

08947560 97167595

Bone marrow fibroblast exposure to the inflammatory cytokines tumor necrosis factor-alpha and interferon-gamma increases adhesion of acute myeloid leukemia cells and alters the adhesive mechanism.

Bendall LJ; Kortlepel K; Gottlieb DJ

Department of Haematology, University of Sydney, Australia.

Exp Hematol (UNITED STATES) Feb 1997, 25 (2) p132-9, ISSN 0301-472X

Journal Code: EPR

Languages: ENGLISH

Document type: JOURNAL ARTICLE

5/3/31 (Item 5 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

08930257 97146023

Homing potentials of circulating lymphocytes in humans depend on the site of activation: oral, but not parenteral, typhoid vaccination induces circulating **antibody**-secreting cells that all bear homing receptors directing them to the gut.

Kantele A; Kantele JM; Savilahti E; Westerholm M; Arvilommi H; Lazarovits A; Butcher EC; Makela PH

National Public Health Institute, Helsinki, Finland.

J Immunol (UNITED STATES) Jan 15 1997, 158 (2) p574-9, ISSN 0022-1767

Journal Code: IFB

Contract/Grant No.: AI37832, AI, NIAID

Languages: ENGLISH

Document type: JOURNAL ARTICLE

5/3/32 (Item 6 from file: 155)  
DIALOG(R)File 155:MEDLINE(R)  
(c) format only 1999 Dialog Corporation. All rts. reserv.

08689961 96202509

Stimulation of tyrosine phosphorylation after ligation of **beta7** and beta1 integrins on human B cells.

Manie SN; Astier A; Wang D; Phifer JS; Chen J; Lazarovits AI; Morimoto C; Freedman AS

Department of Medicine, Harvard Medical School, Boston, MA, USA.

Blood (UNITED STATES) Mar 1 1996, 87 (5) p1855-61, ISSN 0006-4971

Journal Code: A8G

Contract/Grant No.: CA55207, CA, NCI

Languages: ENGLISH

Document type: JOURNAL ARTICLE